



The Daedalean

Semper Discens

Monthly Aerospace Education Newsletter of the Connecticut
Wing of the Civil Air Patrol

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ATTENTION AEOS ANNUAL REPORTS DUE

The annual Squadron reports are due by 15 January, 2011. An email version of this report has been sent with this newsletter. For your convenience, this form may be filled out directly and emailed back to the DAE, srocketto@aquilaasys.com. All an AEO needs to do is look up some facts, enter them on the form, and hit "reply."

DC-3 75th ANNIVERSARY A TRIBUTE



Varig DC-3, Rio de Janeiro, Brazil

December 17 is a signal day in aviation history. On that date in 1903 Orville and Wilber Wright first successfully flew the first heavier than air aircraft on the windswept sand dunes of at Kill Devil Hill, Kitty Hawk, North Carolina.



Provincetown Boston Airlines at Provincetown



Missionair DC-3 flew humanitarian relief flights for Florida based charity.

Some would say that 32 years later was an event that was close to the first flight in significance for on December 17, 1935 the Douglas Aircraft Company first flew the iconic transport aircraft, the DC-3.

When production lines shut down in 1945 16,079 DC-3 had been built, 10,655 in various plants in the United States and, under license to Russia and Japan: 4937 Lisunov Li-2 and 487 Showa L2D Transports. The oldest surviving DC-3, N133D, was the sixth Douglas Sleeper Transport, built in 1935, and belongs to Georgia's Academy Airlines. Approximately 300 remain airworthy today.



Federal Aviation Agency Airways Check Aircraft

The DC-3's variants are commonly known as the C-47, R4D, C-53, C-117, or Dakota. The last is the British Commonwealth name-a clever acronym of Douglas Aircraft Company Transport Aircraft. Also called the Skytrain, the Skytrooper, and most often, fondly, as the Gooney Bird, they were found in every theater of World War II.



USMC R4D

During the Korean War, and in Viet Nam, they flew as a conventional transports, electronic reconnaissance, psychological warfare, and night attack aircraft. They were a mainstay during the early stages of "Operation Vittles", the Berlin Airlift. A Navy R4D, the Que Sera Sera was the first aircraft to land at the South Pole on Halloween 1956.



Que Sera Sera on Skis



C-53 Skytrooper, the troop transport version of the C-47 sports World War II invasion stripes.

The DC-3 has a Connecticut connection. On February 24, 1969, while a crewman in a AC-47, severely wounded A/1c John L. Levitow, a Hartford native, picked himself and an activated and smoking magnesium flare, to the open cargo door of the aircraft which was in a tight banked

turn. He tossed the flare out of the aircraft seconds before it ignited and saved the lives of the entire crew. Levitow returned to Connecticut and served in the Veterans Department until his untimely death at 55 from cancer.



Mini-Gun Mounts in AC-47 "Spooky"

For his actions Levitow was awarded the Congressional Medal of Honor. He was the only Air Force enlisted man to receive the Medal of Honor during Viet Nam and is also the youngest airman to ever to be so honored.

The DC-3 served so well that it is a common saying in the aviation community that the only replacement for a DC-3 is another DC-3.



Peruvian Air Force "Gooney" at Aeropuerto Rodriguez Ballon, Arequipa, Peru.

CURRENT EVENTS

Falcon 9 Launch and Successful Recover of Payload

Space X has successfully launched and recovered a payload in its commercial venture The Falcon 9 lifted off from Cape Canaveral and the Dragon capsule was recovered, three hours later off the

Pacific coast. The Dragon capsule is the first of the commercial entries into NASA's Commercial Orbital Transportation System program.

NASA Launches First Satellite From Another Satellite.

NASA launched the first satellite from a satellite shortly after midnight Sunday. The NanoSail-D satellite was launched from the FASTSAT satellite launched last month. FASTSAT is an acronym for "Fast, Affordable, Science and Technology Satellite." Nano-Sail D is a technology demonstrator which among other objectives, will deploy a polymer sail to test its effectiveness in de-orbiting a satellite.

Japanese Venus Probe Fails to Enter Orbit

A Japanese probe to Venus failed to reach orbit Wednesday. The probe, called *Akatsuki*, which means "Dawn", The thrust needed to obtain orbit was insufficient for reasons unknown and the probe is now headed for the sun.

USAF X-37B Lands after Seven Months in Space

The Air Force Test vehicle set down at Vandenberg Air Force Base autonomously, the first such landing for the US space program. Air Force authorities have issued vague news releases on the mission of the X-37B: testing of guidance, navigation, control, thermal protection and autonomous operation in orbit, re-entry and landing." The Air Force has announced that it will launch a second X-37B in the spring.



X-37B shortly after touchdown at Vandenberg (USAF photo)

NEW HAVEN MINUTEMAN RIFLE



Minutemen on the Line

Eight Cadets and three Officers from the New Haven Minuteman Squadron attended a day long rifle safety and marksmanship training session at the Quaker Hill Rod and Gun Club. All eight Cadets qualified for National Rifle Association Marksmanship medals. The cost free program was by the Quaker Hill Club and the Connecticut Section of the Friends of the NRA.



Minuteman Marksmen

ROCKET RULES

The CTWG will once again sponsor the Commander's Cup Rocket Contest. This year, the rules of engagement have been aligned with the requirements of the Rocketry Badge Program. The construction of the rockets is an ideal winter activity program. The rules follow:

2011 Commander's Cup Rocketry Contest Connecticut Wing

TENTATIVE RULES OF ENGAGEMENT

Every participating squadron will supply one judge.

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Flight 1: Tyro Cadets will build an Estes Alpha or Quest Astra 1 decorated in a Civil Air Patrol Theme. The entry will be judged on construction, finish, and flight. Each first year Cadet in a Squadron may enter one rocket. A Tyro Cadet is a Cadet who has never participated in the Wing contest. (CAVEAT-The Alpha is the model with balsa fins. Do not order the Alpha III with plastic fins for this contest.)

Flight 2: Load Bearing or Multistage Rocket

Flight 3: Historic Air Vehicle

Judging will be based on construction and finish,.

Construction points will be based on sanding, contouring of fins, joins of fins to fuselage, and alignment of fins. Finish will be based upon quality of paint application, neatness of decal or marking application, and appropriate markings and colors.

A scoring rubric will be developed and sent out for comments.

Squadrons are responsible for purchasing rockets, engines, igniters, and wadding.

THAMES RIVER CADETS FLY GLIDERS

Ten Cadets and One Officer from the Thames River Composite Squadron, Civil Air Patrol at Groton-New London Airport spent the weekend in Springfield, Vermont flying gliders. Upon arrival, Col. Dale Hardy of the New Hampshire Wing briefed the group on glider operations and airport safety procedures.



The Prep

CAP glider instructor Tom Matthews then introduced us to the Schweizer 2-33A which the Cadets would fly. The SGS 2-33 is a two place, high wing trainer which first flew in 1965. It has metal wings, a fabric covered fuselage, and a fiberglass nose. The 2-33 is probably the most popular trainer in North America, extensively used by CAP and the Air Cadet League of Canada. At one time the USAF Academy maintained a fleet of 2-33s designated as the TG-4A.

After the aircraft was positioned in the launch area, the Cadets were given instructions on how to attach the tow line, how to to the Piper Pawnee tow plane and taught the hand signals used by the launch crew and the flight crews to communicate.



The Hookup

The Cadets flew 25 flights during the two days. During these flights, the CAP Glider Flight Syllabus was followed and Cadets were instructed on techniques and maneuvers. Some of the topics covered were checklist, tow release, trimming, straight and level flight, turns, situational awareness and visual clearing of airspace before maneuvers, and turn coordination using a simple yaw instrument, a piece of yarn attached to the pitot tube.

None of the Cadets had ever flown in gliders and they all harbored different expectations. After his first flight, Cadet Cathcart stated that "Glider flight is kind of like a roller coaster. Until you pull the release lever to release the glider from the tow plane], there's sort of building anxiety. Once you pull that lever, you're not terrified anymore."



The Launch

The parts of the glider flight syllabus which were covered added to the practical knowledge of aviating. Cadet Vandevander stated that he "...learned how to coordinate' turns. You have to use the joystick and the rudder pedals to turn."



The Final Approach

The Thames river contingent consisted of Cadet 2nd Lt. Brendan Flynn and Cadets Michael Herzog, Austin Vandevander, Brendan Schultz, Kyle Hall, Thomas Ray, Derreck Bunevich, Andrew Cathcart, Thomas Chartier, and Drew Daniels and senior member, Maj Stephen Rocketto.

AVIATION HISTORY **MEMORIES OF DECEMBER'S PAST**

01 DEC, 1941-**CAP BIRTHDAY** Administrative Order 9, issued by Fiorello H. LaGuardia in his capacity as Director of the Office of Civilian Defense establishes the Civil Air Patrol.

The Office of Civilian Defense was a United States federal emergency war agency set up May 20, 1941 by Executive Order 8757 to co-ordinate state and federal measures for protection of civilians in case of war emergency.

Major General John Francis Curry was the first national commander of the Civil Air Patrol, the United States Air Force Auxiliary. He was also a Major General in the United States Army Air Corps.

02 DEC, 1976-First flight of the Boeing 747 SCA, an ex American Airlines aircraft modified to Space Shuttle Orbiter back to Florida in the event of landings at alternate sites. A second Shuttle Carrier Aircraft, a 747-100SR was acquired later from Japan Airlines. A rough calculation to one significant figure shows that given its loaded range of 1000 nm, an aircraft length of 232 ft, and a full fuel load with a conservative reserve will yield a fuel consumption figure of about one gallon per aircraft length!



Orbiter and 747 on the NASA Mate-Demate Gantry at Edwards AFB

03 DEC, 1945-The noted test pilot, Lt. Cmdr Eric "Winkle" Brown, makes the first landing of a pure jet on an aircraft carrier when he guides a de Havilland Sea Vampire onto *H.M.S. Ocean*.



Vampire at Duxford

04 DEC, 1991-Pan American World Airways goes west after 64 years of operation.



The Modest Key West First Office of PAA

05 DEC, 1945-First Flight of the Douglas C-74 Globemaster, progenitor of the Douglas C-124 Globemaster II and the McDonnell-Douglas C-17 Globemaster III.



Note Double-Bubble Canopies on Globemaster I (USAF Photo)



"Old Shaky"-The Globemaster II



Globemaster III

06 DEC, 1960-First Flight of the Sikorsky S-61



A Coulson S-61 Water Bomber

07 DEC, 1941-Japanese aircraft, launched from six aircraft carriers, attacked US military facilities at Pearl Harbor in the Hawaiian Islands.

08 DEC, 1964-A United Airlines Sud-Est *Caravelle* makes he first automatic landing in the United States.



Caravelle in LAN-Chile Livery

09 DEC, 1951-First Flight of the Fiat G.80 jet trainer designed by Giuseppe Gabrielli. The G.80 was the first turbojet aircraft produced in Italy and one of a long line of Gabrielli designed aircraft. Gabrielli also designed the G-222 which has since morphed into the Alenia C-27 Spartan now adopted by the USAF and US Army as an intra-theater transport.

10 DEC, Captains and brothers, Ross Smith and Keith Smith accompanied by Sgts W.H. Shiers and J.M. Bennett land their Vickers Vimy bomber in Darwin completing a flight from Great Britain to Australia and winning a 10,000 pound prize offered by Australian Prime Minister Bill Hughes.



Smith Bros. Vimy on Display in Australia

11 DEC, 1917-Katherine Stinson sets a non-stop distance and endurance record, flying just over 600 miles in nine hours and six minutes from Camp Kearney, San Diego to The Presidio, San Francisco. She flew an OX-2 powered modified Curtiss JN.

12 DEC, 1953-Mach 2.5 (2 ½ times the speed of sound) is achieved for the first time by Major Charles "Chuck" Yeager in the Bell X-1A. The rocket-propelled experimental aircraft reaches 1,650 mph at 70,000 feet.



X-1A Accompanied by F-86 Chase Plane Over Edwards AFB

13 DEC, 1918-A Handley-Page V-1500 four engined bomber departed Great Britain for the first ever flight to India, landing in Karachi on 12 January, 1919. The crew consisted of A.C.S, Maclaren, Robert Halley and N.D.K. McEwan.

14 DEC, 1924-A Martin MO-1 was launched off the forward turret of the U.S.S. Mississippi which was standing off Bremerton, Wa. This was the first successful trial of a gunpowder powered catapult.

15 DEC, 1970-Artem Mikoyan goes west.

16 DEC, 1951-First Flight of the Kaman K-225, the first turbine powered helicopter. Charlie Kaman's Bloomfield, CT company pioneered the concept of intermeshing rotors and servo flaps as an alternative to the tail rotor and rotor head of more conventional machines. (And let us not forget Ovation guitars and guide dogs for the blind.)



K-225 on Display at NASM Udvar-Hazy Center

17 DEC, 1935-First Flight of the Douglas DST (Douglas Sleeper Transport), known as the DC-3 in its 21 commercial passenger version.

First Flight Day, 1903-Kitty Hawk, N.C.



Memorial Stone-Kitty Hawk, North Carolina

18 DEC, 1992- First Flight-McDonnell MD-90

19 DEC, 1968-The Boeing Company receives its first order, from Israeli airline El Al, for a long-range version of the 747 Jumbo Jet.



El Al 747-400

20 DEC, 1954-The Convair YF-102A Delta Dagger makes its first flight at Edwards Air Force Base



Delta Dagger of Our Own "Flying Yankees"

21 DEC, 1982-Squadron 44, the last RAF V-bomber squadron, is disbanded.



AVRO Vulcan, the Last of the V-bombers

22 DEC, 1964-First Flight of the Lockheed SR-71A.



Blackbird on the Ramp

23 DEC, 1974 - The Rockwell B-1A Lancer makes its first flight at Edwards Air Force Base.



B-1A at Wright-Patterson AFB

24 DEC, 1984-Famous Freight Dog Kris Kringle home based at ninety degrees north latitude ramped checked by the Friendly Aviation Agency and found in violation of numerous FARs: overloaded aircraft, lung of one of his organic engines failed pressure test, flying in excess of 250 kts below 10,000 ft, inoperative nose light on Rudolph, and failing to carry a photographic identification card. Deliveries are late and, upon return to The Pole he is further reprimanded by his Director of Operations, Mrs. K.

25 DEC, 1981-United States Air Force Lieutenant Thomas Tiller is rescued out of the Atlantic Ocean after his F-4 Phantom crashed a week prior.

26 DEC, 1972-117 B-52 Stratofortresses attack Hanoi in Operation Linebacker II, the largest air assault in the Vietnam War to this time.



B-52D at Warner-Robins AFB

27 DEC, 1949-US carriers American Airlines and TWA begin coast-to coast coach-class flights with 60-passenger DC-4s, charging US \$110 one-way.



Skymaster on the NASA Payroll

28 DEC, 1967-First Flight of the first production Hawker-Siddeley Harrier.



Hawker Harrier Hanging at Hendon

29 DEC, 1939-First Flight of the Consolidated XB-24 Liberator.



The B-24 was the most produced U.S. aircraft in WW II. This is a B-24J formerly of the Indian Air force, now at the Pima Air Museum, Tucson.

30 DEC, 1939-First Flight of the prototype Ilyushin IL-2 Shturmovik. Over 38,000 were produced, the largest number of a single type of military aircraft ever produced.

31 DEC, 1926-The first Air Commerce Regulations by the Aeronautics Bureau of the Department of Commerce become effective. They cover aspects of licensing, registration of aircraft,

NEW ENGLAND AIR MUSEUM

14 November, 2010

The NEAM held its special "Voices of Pride" Open Cockpit Day to honor military veterans. Veterans who were associated with many of the exhibits were present and spent time discussing their military experiences and the relationship which they had with aviation.

CAP stalwarts, LtCols Benson and Stidsen were present. Col Benson was an F-4 pilot with 176 mission in South Vietnam, North Vietnam, and Laos. He also flew F-100s and the A-10 with the Air Guard. His time with the 101st Airborne made him cognizant of the difficulties faced by the infantry and the importance of the close air support missions which he often flew.

Col Stidsen served as a Combat Crew Commander in the Titan II missile fields near Tucson, Arizona. He explained what it was like to work 30 hour shifts, most of it underground, training and waiting for an order which they hoped would never come: to launch their ICBMs at Soviet targets.

Jimmy Doolittle's granddaughter, Joanna Doolittle Hoppes spoke about Doolittle's early career, his military service, and his contributions to the science and art of aviation. Doolittle is best known for leading the first air raid on mainland Japan flying B-25s off the USS Hornet. Most people are unaware of his early and accomplishments.



Doolittle Raider's Diorama-National Museum of the USAF

As an air racer, he won the big three: Schneider, Bendix, and Thompson events and set numerous cross country records. He was the first to perform the outside loop.



*Doolittle, the Air Racer and 1930's Memorabilia
San Diego Air and Space Museum*

His contributions to the future of aviation and aerospace spanned four decades. Doolittle was a driving force at Shell Oil in the development of 100 octane gasoline. He obtained the first doctorate in aeronautical engineering granted by the Massachusetts Institute of Technology. His pioneering efforts to develop the instruments and techniques for "blind flight" are legendary.

As a wartime leader and commander of the US Eighth Air Force in Europe, he directed General William E. Kepner, head of Eighth Fighter Command, to change the tactics used by escort fighters. Previously, the fighters had been strictly tied to sticking with the bomber formations. Under the new policies, after protecting the bombers, they were released to pursue the German fighters as far as their home fields. These tactics are credited with seriously impairing the the efficacy

of the German interceptor efforts. Gradually, unable to sustain losses, air superiority and eventually, air superiority were achieved in the European Theatre of Operations. Doolittle regarded this decision as the most important he made during World War II.

Finally, after the war, Doolittle served as a high level consultant to the US government and served on committees advising government and industry on missile and aerial reconnaissance programs.

Mrs. Hoppes spoke about the close relationship which he maintained with his wife, Jo, over the course of their 71 years together. Jo provided a necessary support for the family during Doolittle's absences and during the war, soldiered tirelessly on the home front, supporting the war effort.

After her talk, our Cadets were permitted a some time to speak directly with Mrs. Hoppes. She provided further insights into his character as a human being. She remarked that "He was fun and he made us (his grandchildren) laugh," a good epitaph for a great man.



*USS Hornet Launching the Raiders
Virginia Air Museum Diorama*